

CLAIMS

1. A thrust sliding bearing comprising:
 - a first bearing body having an annular surface;
 - a second bearing body which is superposed on said first bearing body so as to be rotatable about an axis of said first bearing body, and has an annular surface opposed to the annular surface of said first bearing body; and
 - an annular thrust sliding bearing piece and an elastic ring superposed on top of each other and interposed between the annular surfaces,
 - wherein said thrust sliding bearing piece has an annular plate portion and at least two annular projecting portions which are integrally formed on one surface of said annular plate portion and are brought into contact with the annular surface of said first bearing body slidably with respect to said annular surface so as to form a hermetically sealed annular space in cooperation with said annular surface, and said elastic ring is interposed between said thrust sliding bearing piece and said second bearing body in contact with another surface of said annular plate portion and the annular surface of said second bearing body, a lubricant being filled in the hermetically sealed annular space.
2. The thrust sliding bearing according to claim 1, wherein said thrust sliding bearing piece further has at least two other annular projecting portions formed integrally on another surface of said annular plate portion, wherein said elastic ring is disposed between said two other annular projecting portions in a radial direction.
3. The thrust sliding bearing according to claim 1 or 2, wherein said thrust sliding bearing piece has at least one intermediate annular projecting portion which is integrally formed on the one surface of said annular plate portion between said two annular projecting portions in the radial direction and is brought into contact with the

annular surface of said first bearing body slidably with respect to said annular surface so as to form a plurality of mutually separated split hermetically sealed annular spaces in cooperation with said annular surface and said two annular projecting portions by splitting said hermetically sealed annular space.

4. The thrust sliding bearing according to any one of claims 1 to 3, wherein said elastic ring is formed of natural rubber, synthetic rubber, or a thermoplastic elastomer.

5. The thrust sliding bearing according to any one of claims 1 to 4, wherein the lubricant fills said hermetically sealed annular space without a gap under a thrust load.

6. The thrust sliding bearing according to any one of claims 1 to 5, wherein the lubricant fills said hermetically sealed annular space without a gap under no thrust load.

7. The thrust sliding bearing according to any one of claims 1 to 6, wherein the lubricant includes at least one of grease and lubricating oil.

8. The thrust sliding bearing according to any one of claims 1 to 7, wherein the lubricant is constituted by silicone-based grease.

9. The thrust sliding bearing according to any one of claims 1 to 8, wherein both of said bearing bodies are formed of a synthetic resin including at least one of polyacetal resin, polyamide resin, thermoplastic polyester resin, polyolefin resin, polycarbonate resin, and fluororesin.

10. The thrust sliding bearing according to any one of claims 1 to 9, wherein said thrust sliding bearing piece is formed of a synthetic resin including at least one of polyacetal resin, polyamide resin, thermoplastic polyester resin, polyolefin resin, and fluororesin.

11. The thrust sliding bearing according to any one of claims 1 to 10, wherein said first bearing body at a radially outer peripheral edge portion thereof is adapted to be resiliently fitted to said second bearing body at a radially outer peripheral edge portion

of said second bearing body.

12. The thrust sliding bearing according to any one of claims 1 to 11, wherein a labyrinth is formed between said bearing bodies in at least one of the outer peripheral edge portions and inner peripheral edge portions, as viewed in a radial direction, of both of said bearing bodies.

13. The thrust sliding bearing according to any one of claims 1 to 12, wherein said second bearing body has large- and small-diameter annular projections formed integrally on the annular surface thereof, and said thrust sliding bearing piece and said elastic ring are disposed radially inwardly of said large-diameter annular projection and radially outwardly of said small-diameter annular projection.

14. The thrust sliding bearing according to claim 13, wherein said thrust sliding bearing piece at radially outer and inner peripheral surfaces thereof is slidably brought into contact with said large- and small-diameter annular projections, respectively.

15. The thrust sliding bearing according to any one of claims 1 to 14 for use in a strut-type suspension in a four-wheeled vehicle.